

ABSTRACT OF THE DISCLOSURE

An electrodynamic drive system (2) for a vehicle having, between a drive source (4) and a transmission (16), a planetary gear drive (12) which incorporates three elements, namely, a sun gear (50), an internal gear (10) and a planetary gear carrier (32). A first element (32) is connected to the transmission (16), a second element (10) is connected to the drive source (4) and a third element (50) is bound to at least one electric motor (22), thus an abrasion-free starting element is formed for the vehicle.

1-16. (CANCELED).

17. (PREVIOUSLY PRESENTED) An electrodynamic drive system (2) for a vehicle located between a drive source (4) and a transmission (16), having a single planetary gear set (12), which includes a sun gear (50), an internal gear (10), a planetary gear (36) and a planetary gear carrier (32), of which the planetary carrier (32) is connected to the transmission (16), the internal gear (10) is connected to the drive source (4) and the sun gear (50) is bound to at least one electric motor (22), with a shift clutch (40) located between the planetary gear carrier and the sun gear (50) and operable to bypass the planetary gear set (12), and a blocking device is provided for torque reinforcement during starting of the drive source (4)

wherein the blocking device is a braking apparatus of the vehicle and a simultaneously engaged gear stage of the shift clutch (40).

18. (PREVIOUSLY PRESENTED) An electrodynamic drive system (2) for a vehicle located between a drive source (4) and a transmission (16), having a single planetary gear set (12), which includes a sun gear (50), an internal gear (10), a planetary gear (36) and a planetary gear carrier (32), of which the planetary carrier (32) is connected to the transmission (16), the internal gear (10) is connected to the drive source (4) and the sun gear (50) is bound to at least one electric motor (22), with a shift clutch (40) located between the planetary gear carrier and the sun gear (50) and operable to bypass the planetary gear set (12), and a blocking device is provided for torque reinforcement during starting of the drive source (4)

wherein the blocking device is formed by an override clutch (59) on an input shaft (28) of the transmission (16).

19. (CANCELED).

20. (CANCELED).

21. (CURRENTLY AMENDED) An electrodynamic drive system (2) for a vehicle located between a drive source (4) and a transmission (16), having a single planetary gear set (12), ~~[[which includes]]~~ the single planetary gear set (12) consisting of a single sun gear (50), a~~[[n]]~~ single internal gear (10), ~~[[a planetary gear (36)]]~~ and a single planetary gear carrier (32) comprising at least one planetary gear (36), [[of which]]

wherein the planetary carrier (32) is connected to the transmission (16), the internal gear (10) is connected to the drive source (4) and the sun gear (50) is bound to at least one electric motor (22), with a shift clutch (40) located between the

planetary gear carrier and the sun gear (50) and operable to bypass the planetary gear set (12), and

~~[[wherein]]~~ a plurality of electric motors (22) on the sun gear (50) act upon the planetary drive (12).

22. (CURRENTLY AMENDED) An electrodynamic drive system (2) for a vehicle located between a drive source (4) and a transmission (16), having a single planetary gear set (12), ~~which includes the single planetary gear set (12) consisting of a single~~ sun gear (50), a~~[[n]]~~ single internal gear (10), ~~[[a planetary gear (36)]]~~ and a single planetary gear carrier (32) comprising at least one planetary gear (36), [[of which]]

wherein the planetary carrier (32) is connected to the transmission (16), the internal gear (10) is connected to the drive source (4) and the sun gear (50) is bound to at least one electric motor (22), with a shift clutch (40) located between the planetary gear carrier and the sun gear (50) and operable to bypass the planetary gear set (12),

wherein the shift clutch (40) includes a dog clutch.

23. (CURRENTLY AMENDED) An electrodynamic drive system (2) for a vehicle located between a drive source (4) and a transmission (16), having a single planetary gear set (12), ~~which includes the single planetary gear set (12) consisting of a single~~ sun gear (50), a~~[[n]]~~ single internal gear (10), ~~[[a planetary gear (36)]]~~ and a single planetary gear carrier (32) comprising at least one planetary gear (36), [[of which]]

wherein the planetary carrier (32) is connected to the transmission (16), the internal gear (10) is connected to the drive source (4) and the sun gear (50) is bound to at least one electric motor (22), with a shift clutch (40) located between the planetary gear carrier and the sun gear (50) and operable to bypass the planetary gear set (12), and

~~[[wherein]]~~ a control is provided, which can regulate the at least one electric motor (22) in 4-quadrant operation.

24. (PREVIOUSLY PRESENTED) An electrodynamic drive system (2) for a vehicle located between a drive source (4) and a transmission (16), having a single planetary gear set (12), which includes a sun gear (50), an internal gear (10), a planetary gear (36) and a planetary gear carrier (32), of which the planetary carrier (32) is connected to the transmission (16), the internal gear (10) is connected to the drive source (4) and the sun gear (50) is bound to at least one electric motor (22), with a shift

clutch (40) located between the planetary gear carrier and the sun gear (50) and operable to bypass the planetary gear set (12);

a blocking device is provided for torque reinforcement during starting of the drive source (4); and

the blocking device is in the transmission (16) and is formed by the simultaneous engagement of two gear stages.

25. (PREVIOUSLY PRESENTED) An electrodynamic drive system (2) for a vehicle located between a drive source (4) and a transmission (16), having a single planetary gear set (12), which includes a sun gear (50), an internal gear (10), a planetary gear (36) and a planetary gear carrier (32), of which the planetary carrier (32) is connected to the transmission (16), the internal gear (10) is connected to the drive source (4) and the sun gear (50) is bound to at least one electric motor (22), with a shift clutch (40) located between the planetary gear carrier and the sun gear (50) and operable to bypass the planetary gear set (12); and wherein between the drive source (4) and the electrodynamic drive system (2) an overrunning clutch (58) is provided.

26. (PREVIOUSLY PRESENTED) The electrodynamic drive system (2) for a vehicle according to claim 25, wherein one of an eddy current brake and a hydrodynamic retarder (56) is placed on a shaft (42) of the planetary drive (12).

27. (PREVIOUSLY PRESENTED) The electrodynamic drive system (2) for a vehicle according to claim 25, wherein a plurality of electric motors (22) on the sun gear (50) act upon the planetary drive (12).

28. (PREVIOUSLY PRESENTED) The electrodynamic drive system (2) for a vehicle according to claim 25, wherein the shift clutch (40) includes a dog clutch.

29. (PREVIOUSLY PRESENTED) The electrodynamic drive system (2) for a vehicle according to claim 25, wherein a control is provided, which can regulate the at least one electric motor (22) in 4-quadrant operation.